

Claim 2 which depends on claim 1, recites the carbon film is a diamond like carbon film. Claim 4 which depends on either claim 1 or claim 2, recites that the portion to be in contact with another object is made of a polymer material. The carbon film has a wear resistance and a lubricity, and the object having the portion is a structure component member.

As noted in the Office Action of March 12, 2001, it is respectfully submitted that claims 1, 2, and 4 are generic claims. Therefore, claims 1, 2, and 4 should be examined along with claims 6, 13, and new claims 16-23. New claims 16-23 more clearly and distinctly recite the subject matter of the chosen species of the present invention, namely, a machine part. Applicants respectfully request consideration of claims 6, 13, and 16-23.

Claims 3, 6, and 13 are rejected under 35 U.S.C. 102(e) as being anticipated by Mahoney (U.S. Patent 5, 521,351). The Office Action states that Mahoney discloses all the elements recited in the rejected claims. Since claim 3 is cancelled by this amendment, its rejection is moot. However claim 3 is rewritten in independent form as claim 16. Claim 6 and claim 13 depend on claim 1 and 2.

Claim 16 is directed to a machine part that is selected from a group including a shaft for supporting a rotatable member, a roller employed in a machine, a frame for a machine, an object guiding member employed in a machine, an object receiving member such as an object receiving tray employed in a machine and a fuel tank for a machine, having a portion to be in contact with another object without fluidity. The portion is made of an organic polymer material selected from a group including resin and rubber. The portion also has an outer surface entirely or partly coated with a carbon film having a wear resistance and a lubricity.

Mahoney discloses an apparatus and method for coating the inside of a hollow form with a thin film. Mahoney discloses, in one embodiment, an apparatus that includes a vacuum chamber enclosure having a cylindrical side wall, a top closure plate and a bottom closure plate. Thus, a hollow form is created that maybe comprised of various thermal set plastics or glass. As a result, the container disclosed by Mahoney can be treated with a carbon film at its inner surface. In addition, Mahoney discloses depositing a barrier coating film by using plasma deposition on the interior surface of the container.

However, Mahoney does not disclose a fuel tank for a machine having a portion to be in contact with another object without fluidity. Thus, Mahoney does not disclose a fuel tank

having a portion that is in contact with another object that is solid. In addition, the fuel tank disclosed in Mahoney is coated with a carbon film on the inner surface, whereas, the new claim 16 discloses a machine part that is coated with a carbon film on the outer surface. Since this element is not disclosed by Mahoney, Applicants submit that Mahoney does not anticipate the present invention. Therefore, Applicants respectfully request withdrawal of the rejection to claims 6 and 13.

The Office Action rejects claims 3, 6, and 13 under 35 U.S.C. 102(b) as being anticipated by Itoh (U.S. patent 4,996,079) or Thaler (U.S. patent 4,981,717). Specifically, the Office Action states that Itoh or Thaler disclose all the elements of the present invention.

Itoh discloses a method of depositing thin films consisting mainly of carbon. More specifically, Itoh teaches depositing a carbon material upon a surface such a semiconductor, glass, metal, ceramic and other such materials. However, Itoh does not disclose depositing a carbon material on a machine part but rather on semiconductor related devices such as on a substrate. Therefore, since Itoh does not disclose a carbon film being depositing on a machine part, Applicants submit that Itoh does not anticipate the present invention.

Thaler discloses a diamond like coating and method of forming the same. Specifically, Thaler discloses a diamond-like coating that is provided as a protective coating for sliding wear parts such as valves, pistons, and bearings. Thaler also discloses the film having a high degree of lubricity as well as hardness and durability. However, Thaler does not discloses utilizing such a film on a fuel tank as disclosed in the present invention. Thus, since a fuel tank is not disclosed by Thaler, Applicants respectfully submit that Thaler does not anticipate the present invention.

New claims 16-23 are directed towards machine parts and it should be noted that claim 3 is rewritten in independent form and is submitted as new claim 16.

In view of the remarks, Applicants respectfully request allowance of claims 6, 13 and new claims 16-23.

CONCLUSION

In view of the distinctions discussed above, withdrawal of the rejections to claims 6 and 13 is respectfully requested. Therefore, Applicants submit that the application is now in condition for allowance with Claims 6, 13, and 16-23 contained therein.

Should the Examiner believe the application is not in condition for allowance, the Examiner is invited to contact Applicant's undersigned attorney at the telephone number listed below.

In the event this paper is not considered to be timely filed, Applicants respectfully petition for an appropriate extension of time. The Commissioner is authorized to charge payment for any additional fees which may be required with respect to this paper to Counsel's Deposit Account 01-2300.

Respectfully submitted,

Arent Fox Kintner Plotkin & Kahn

A handwritten signature in black ink, appearing to read 'BKS', is written over a horizontal line.

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